

Analysis of Food Dyes Peer Grading Rubric

Whose lab report are you grading? _____

Grader's Name _____ Date _____ Period _____

***Take off at least one point for each box that is not checked in the table below.

<u>Requirements</u>	<u>Earned Points</u>	<u>Possible Points</u>	<u>Comments</u>
Heading <ul style="list-style-type: none"> <input type="checkbox"/> Date of experiment <input type="checkbox"/> Lab partner(s) <input type="checkbox"/> Experiment Title 		3	
Pre-Lab <ul style="list-style-type: none"> <input type="checkbox"/> Purpose Background Knowledge (3 pts) <ul style="list-style-type: none"> <input type="checkbox"/> Graph of Absorbance vs. Concentration (-1/2 if no title) <input type="checkbox"/> Sample calculation using "$y = mx + b$" for best fit line <input type="checkbox"/> Blue Dye 1 is the only colored ingredient; expt. Is valid Materials <ul style="list-style-type: none"> <input type="checkbox"/> Bulleted list <input type="checkbox"/> Accurate Safety <ul style="list-style-type: none"> <input type="checkbox"/> Comprehensive Protocol <ul style="list-style-type: none"> <input type="checkbox"/> Imperative <input type="checkbox"/> detailed enough to follow <input type="checkbox"/> numbered steps 		10	
Data <ul style="list-style-type: none"> <input type="checkbox"/> Spectrophotometry Data Table (-1/2 point if no title) <input type="checkbox"/> % Transmittance <input type="checkbox"/> Transmittance <input type="checkbox"/> Absorbance (-log T) 		4	
Data Processing <p>Concentration of FD&C Blue 1 Dye</p> <ul style="list-style-type: none"> <input type="checkbox"/> $y = mx + b$ <input type="checkbox"/> Substitution <input type="checkbox"/> Boxed answer with μM units <p>Mass of FD&C Blue 1 dye</p> <ul style="list-style-type: none"> <input type="checkbox"/> Shows all work <input type="checkbox"/> Boxed answer with mg units <input type="checkbox"/> All calculations are clearly labeled and easy to understand 		6	

<p>Discussion Questions</p> <ul style="list-style-type: none"> <input type="checkbox"/> Complete Sentences <input type="checkbox"/> Correct Spelling and Grammar <input type="checkbox"/> #1) % T = 3.2 %, little light transmitted = greater error <input type="checkbox"/> #2) $\text{CuSO}_4 + 4 \text{NH}_3 \rightarrow [\text{Cu}(\text{NH}_3)_4]\text{SO}_4$ <input type="checkbox"/> #3) Λ_{max} for $[\text{Cu}(\text{NH}_3)_4]^{2+}$ (yellow-green) less than Λ_{max} for $[\text{Cu}(\text{H}_2\text{O})_6]^{2+}$ (red-orange) <input type="checkbox"/> #4) Zn ions have filled d subshells, no empty d orbitals for e- 		6	
<p>Conclusion and Evaluation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Complete sentences <input type="checkbox"/> Correct spelling and grammar <p>Paragraph 1:</p> <ul style="list-style-type: none"> <input type="checkbox"/> What is the purpose? <input type="checkbox"/> Calibration Curve provides equation for relating Abs and [] <input type="checkbox"/> Explanation of Beer's Law as applied to this lab <input type="checkbox"/> How could the results be improved? 		6	
<p>Presentation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Well-organized, sections clearly labeled <input type="checkbox"/> Neat, legible writing <input type="checkbox"/> Table of contents includes information <input type="checkbox"/> Page numbers included <input type="checkbox"/> Lab is written in ink <input type="checkbox"/> Errors properly crossed out, no white out <input type="checkbox"/> Writes on one side of the page only 		7	

Total points earned: _____ / 42

Write two things the student did well in this lab report:

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Write two things that the student could do to improve the lab report:

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